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# The Resurrection of Natural Law Theory

Hendrik Gommer\*

## I. Introduction

The job of legal scholars is to describe the structure and coherence of norms. Kelsen warned against reducing law to morality.<sup>1</sup> Law is an autonomous system in which legal norms relate to each other, institutionalise their own change and organise their application.<sup>2</sup> This system starts with pure thought and cannot be derived from biological facts. Kelsen's ideas are still very much alive. According to the Dutch philosopher of law Kaptein, animals do not know such concepts as property rights, contracts and human rights.<sup>3</sup> Biological predispositions do not engender rules. We need reason to make rules. Animals do not have reason. A biological theory can only *explain* some of our rules, but it cannot be normative. It cannot prescribe how people ought to behave, what they should do with those predispositions.

Kelsen and Kaptein, like many philosophers of law, presume there is a gap between biology (or animals) and reason (which humans have and animals have not). Because of this gap, there is also an unbridgeable gap between facts and norms. Facts originate from biology, norms stem from reason. Jan Koster, philosopher of language, stated that the gap between 'ought' and 'is' makes it impossible to reduce ethics to biology.<sup>4</sup> He called me naïve for appearing to do so. Maris concluded that all empiricists agree that norms cannot be derived from facts.<sup>5</sup> Ross for example said: '[T]o build a doctrine of morality upon a purely empirical foundation must be an illusion.'<sup>6</sup> Even well-known moral biologists like Frans de Waal and Morris Hoffman that do not accept a gap between biology and reason do not dare deny the gap between facts and norms. 'All that nature can offer is information, not prescription,' De Waal writes.<sup>7</sup> 'The biggest philosophical barrier remains the naturalistic fallacy [...] we should always be aware of Hume's command never to confuse the is with the ought,' writes Hoffman in his paper on law and biology.<sup>8</sup> Hauser, however, thinks the gap is not absolute. Nature may limit what is morally possible. 'The only way to develop stable prescriptive principles, is to understand how they will break down in the face of biases that Mother Nature equipped us with'.<sup>9</sup> If this is the case, empiricism is indeed impossible.<sup>10</sup> Without bridging the gap between the 'is' and the

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<sup>1</sup> *Hans Kelsen*, Introduction to the Problems of Legal Theory, Berkeley: The University of California Press 1967.

<sup>2</sup> *Hans Kelsen*, Kausalität und Zurechnung, Archiv für Rechts- und Sozialphilosophie (ARSP) 1960, p. 321-333.

<sup>3</sup> *Hendrik Kaptein*, Gommers natuurrechtsleer: no new fable of the bees, NJB 2009, 1734-1736; *Hendrik Gommer*, Normen als uitkomst van natuurlijke selectie, NJB 2009, p. 1327-1331; See also *Hendrik Gommer*, From the 'Is' to the 'Ought': A Biological Theory of Law, to be published in ARSP (accepted 3 January 2010, in press for 2011).

<sup>4</sup> *Jan Koster*, Moraal zit niet in onze genen, Trema 2010, p. 76-78.

<sup>5</sup> *Cornelis W. Maris*, Critique of the Empiricist Explanation of Morality, Deventer: Kluwer 1981, p. 243.

<sup>6</sup> *Alf Ross*, On Law and Justice, Berkeley: University of California Press 1959, p. 290.

<sup>7</sup> *Frans de Waal*, The Age of Empathy, New York: Harmony Books 2009.

<sup>8</sup> *Morris B. Hoffman*, Law and Biology, The Journal of Philosophy, Science & Law, vol. 8, 2 May 2008.

<sup>9</sup> *Marc D. Hauser*, Moral Minds, London: Abacus 2009, p. 7.

<sup>10</sup> *Maris* (note 5), p. 259.

'ought' a true natural law theory is not feasible. Such a rigorous divide will cause jurisprudence to cut itself off from new discoveries in empiric sciences. I will therefore challenge once again the dogma that an 'ought' cannot be derived from an 'is'. I will do this by responding to Pauline Westerman's claim that a natural law theory based on biological predispositions is not possible.<sup>11</sup> But first I will briefly describe what in my view is a viable biological theory of law.<sup>12</sup>

## II. A biological theory of law

It is not the survival of organisms, but the survival of genes that dictates how organisms behave.<sup>13</sup> It is important to stress this. Genes – in being molecules – do not have feelings. They have no goal. The essential properties of a gene are that it can be stable for a considerable time and replicate itself. It replicates itself because that is its molecular property. Genes that replicate better than other genes have a better chance of spreading.<sup>14</sup> This process is purely a matter of chemistry and statistics. It is all about scientific facts. Genes have no direct control over our behaviour, but influence the evolvement of behaviour through priming chemical processes in our bodies.<sup>15</sup>

Some genes cluster together, cooperate and produce a variety of proteins. Cooperation between genes is key. Although Richard Dawkins used the metaphor of a selfish gene, genes actually are very dependent on each other. A single gene will face many problems in trying to replicate and spread. It has to encounter the right molecules that are necessary for replication. The combination of a gene that generates a flagella and a gene that generates a device that can capture the right molecules helps both genes spread faster. Selection will therefore be to the benefit of the gene combination. But the capture-device gene has to share the captured molecules with the flagella gene. So only if they find twice as many molecules as the separate ancestors required will the combination be successful.<sup>16</sup> Is the capture-device gene altruistic because it shares its food with the flagella gene? Well, not exactly. Sharing is a necessity to find extra food. Without sharing, the flagellate gene could not replicate and the capture-device gene would soon be alone again. Probably, it would be 'eaten' by a stable gene combination in which the capture-device gene does share. Is the not-sharing gene selfish? Well, no. It will not succeed and will be food for the cooperating gene combination. Genes are neither altruistic nor selfish; they are interdependent. Sometimes the cooperation of two genes is successful. In the same way, the cooperation of 1,000 genes can be successful. On the level of genes notions like egoism and altruism simply do not pertain.

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<sup>11</sup> *Pauline C. Westerman*, *The Disintegration of Natural Law Theory*, Leiden: Brill 1998.

<sup>12</sup> A more thorough description will be published in *Archiv für Rechts- und Sozialphilosophie* (note 3).

<sup>13</sup> *Catherine Salmon & Charles Crawford*, *Evolutionary Psychology: The Historical Context* in: Charles Crawford & Dennis Krebs (eds.), *Foundations of Evolutionary Psychology*, New York: Lawrence Erlbaum Associates 2009, p. 1-21.

<sup>14</sup> *William D. Hamilton*, *The Genetical Evolution of Social Behaviour*, *Journal of Theoretical Biology* 1964, no. 7, 1-52. See also *Richard Dawkins*, *The Selfish Gene*, Oxford: Oxford University Press 2006 (first published 1976).

<sup>15</sup> *John Alcock*, *The Triumph of Sociobiology*, New York: Oxford University Press 2001, p. 37.

<sup>16</sup> See also *William D. Hamilton*, *The Evolution of Altruistic Behavior*, *American Naturalist* 1963, p. 354-356.

Proteins influence their environment, sometimes in such a way that the environment enhances replication opportunities. These proteins can hold a cell together or even make cells cluster together. Frequently, these cells cooperate intensively and form an organism consisting of specialised cells that all have the same gene combination. When an organism reproduces itself, its genes spread over the population. With the right genes, the organism can build a shelter, thereby improving not only its own survival chances but also the replication possibilities of its genes.<sup>17</sup> In the same way, it can be profitable to work together with other organisms. Other organisms can help fight enemies, can help find food, and can help defend its (and each other's) offspring. Ideally, these other organisms all have the same genes, so that the death of one organism can improve the chances of the genes in its clones. In any case, if there were no gain at all for the cooperator, selection would surely act against it.<sup>18</sup> *Thus, behaviour that is in the benefit of underlying genes will stay, behaviour that is not, will vanish because the underlying genes will disappear.*

On a population level, we can use group members to help provide food and to defend our neighbourhood against intruders. We are stronger with the help of our neighbours and when we cooperate we can become specialists. In this way, we can form a society that can defend itself even better and find more food, so that its members can improve on their reproductive success. Thus, moral guidelines have to be the result of adaptive cooperative behaviour.<sup>19</sup> Moral behaviour too would vanish if it did not in some way favour the genes that enable it.

Everyone that cooperates benefits, so cooperation helps the spreading of our genes. Actually, genes programme us to cooperate; we *feel* we ought to cooperate. This is important. Biological mechanisms make us *feel* bad if we take action that is harmful to the group. Emotions are evolutionary mechanisms that help organisms survive without reason. We feel fear if someone threatens us, we feel guilt if we do not cooperate. These emotions serve no higher *purpose*; our goal is not to survive. Chemical processes, which cause emotions, do not have a goal. It is the other way round: these emotions exist because they *cause* underlying genes to spread. We *feel* we *ought* to live according to group moral and rules, because only humans that have such feelings can cooperate within successful groups. If we do not do what is good for our genes, these genes will not spread and they will vanish. *The translation of this simple biological mechanism into the normative notion that we must do what is good for our genes, thus takes place by feelings that in their turn also are the result of biological processes.* The norm that we have to do what is good for our genes, is not a must. If we do not, those genes will vanish and as a result normative thinking will disappear. If we act in the benefit of our genes, they will spread and we will experience this as *good*. Normative thinking is caused by biological mechanisms that make us think in favour of their spreading. *It is not reason that dictates the body how to behave; it is the body that dictates reason how to think.* Norms are a means by which our brain interprets facts so that we react to these facts in a way that benefits the spreading of the underlying genes most.

We ought to cooperate because group members tell us so, for if we do not cooperate their lives will be in danger. In other words, we have an intrinsic and an extrinsic

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<sup>17</sup> Richard Dawkins, *The Extended Phenotype*, Oxford: Oxford University Press 1983.

<sup>18</sup> George C. Williams, *Adaptation and Natural Selection*, Princeton, Princeton University Press 1966.

<sup>19</sup> Michael Ruse, *Evolutionary Naturalism: Selected Essays*, London: Routledge 1995.

reason to cooperate. However, both reasons are biological and factual: cooperation makes the spreading of genes of other group members on whom we depend – and thus the spreading of our own genes – successful. In addition, we will feel happy when we are being altruistic.<sup>20</sup> We feel the approval of the group members on whom we depend. Again, this feeling is a result of chemical processes which causes neurological changes. These processes are triggered by genes because if we feel happy when acting to the benefit of our genes, those genes will spread faster than if there were no neurological feedback.

Not only genes that make people tend to keep off intruders will spread. Genes of individuals that take advantage of other individuals within a society are even more successful. If we make our neighbours work for us, our genes will spread faster than theirs. So even when working together we need to outwit our fellow group members. We can cheat them, steal from them, murder them or even better: use them as slaves. People are equal, so they tell us, but charity begins at home. Genes that programme people to cheat will tend to be very successful and spread fast within the population. *Unless other people unmask the cheaters.* In a stable society, cheaters – free riders – will be caught and punished. Their cheating will backfire on them; their reproductive chances will diminish and the genes of cooperative humans that only cheat in a limited and/or very smart way will spread within the population.<sup>21</sup>

Thus it is vital to unmask cheaters. According to Dunbar the human brain is organ that is fit to localise people that want to take use of its body.<sup>22</sup> At the same time, people have to keep cooperation up. The brain will use labels to identify group members and strategies. People that make use of my resources without giving me something in return the brain will categorise as ‘cheaters’. Intruders or group members that kill group members that cooperate with me are ‘murderers’. This behaviour is not conducive to spreading my genes, so I will label it as ‘bad’. By means of altruistic punishment, people punish cheaters, even when their direct benefit is low.<sup>23</sup> The indirect benefit is that not everyone has to be strong and aggressive. Some can evolve other skills that are of the benefit not only to themselves, but also to the group members. In this way, the moral system combined with altruistic punishment can keep cheaters, thieves and murderers in check, so that the genes of the cooperators can spread. As Fehr and Gächter discovered, people tend to contribute half of their earnings to the benefit of the group, even though they would gain more if they kept it for themselves.<sup>24</sup> They want to promote the welfare of the group,<sup>25</sup> and they do this from feelings of debt and gratitude.<sup>26</sup>

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<sup>20</sup> Christopher Boehm, Explaining the Prosocial Side of Moral Communities, in: Phillip Clayton & Jeffrey Schloss (eds.), *Evolution and Ethics*, Cambridge: W.B. Eerdmans Publishing Company 2004, p. 50-77.

<sup>21</sup> Robert Axelrod and William.D. Hamilton, *The Evolution of Cooperation*, Science 1981, p. 1390-1396.

<sup>22</sup> Robin I.M. Dunbar, *Brains on Two Legs*, in: F.B.M. de Waal, *Tree of Origin*, Cambridge: Harvard University Press 2001.

<sup>23</sup> Ernst Fehr & Simon Gächter, *Altruistic Punishment in Humans*, Nature 2002, p. 137-140.

<sup>24</sup> Ibid.

<sup>25</sup> Peter J. Richerson & Robert Boyd, *The Evolution of Subjective Commitment: A Tribal Instincts Hypothesis*, in: Randolph Nesse (ed.), *Evolution and the Capacity for Commitment*, New York: Russell Sage Foundation 2001, p. 186-219.

<sup>26</sup> Michael E. McCullough, Robert Emmons et al., *Is Gratitude a Moral Affect?*, Psychological Bulletin 2001, p. 249-266.

Group members can help to find food, raise children and repel outsiders. Therefore, we will treat group members altruistically, as long as they contribute to the group according to group rules and group moral. We have strong inhibitions against killing members of our own community.<sup>27</sup> We feel empathic concern towards them and this will help to stabilise the group.<sup>28</sup> In a stable society, a system of control, honour, law, coercion and punishment has to keep people 'civilised'. However, this system does not come from the outside; it grows within communities because the genes that benefit from a stable society – where free riders will face high costs – will cause it to evolve. When individual group members act as free riders, the other group members will experience this behaviour as *unjust*. They will take action to restore the balance.<sup>29</sup> Just like chimpanzees do when food is taken away by some other ape. They will try to take it back, but if that is impossible, they will retaliate. They will take revenge, so that the other ape has no benefit of its action.<sup>30</sup> Organisms that continue to steal will be punished repeatedly. This will inhibit its reproduction, in favour of the punishing group members.

For out-group people the story is different. Out-group people can endanger the community. They can take food away, kill the children and use women to their own procreative ends. Non-group members do not contribute to group stability and therefore neither to the spreading of our genes. On the contrary, they are a threat to our genes because their genes will probably spread by diminishing our own.<sup>31</sup> Thus murdering out-group people can be to the benefit of the spreading of genes of in-group people.

However, groups that cooperate can reach sophistication in making tools (and weapons). These groups will establish alliances and trade networks.<sup>32</sup> Some strong groups succeed in subjecting other groups. These powerful groups will control the conquered groups by determining how members of other groups must behave. Members of the submitted groups will obey the new leaders because it is in their interest to do so. By obeying, they can survive and reproduce. Smart rulers will use group morals and group standards to make group members obey. As Richerson and Boyd state, '[t]he symbolic unity of the early state may often have been as much the unity of the elite as the unity of society as a whole.'<sup>33</sup> The mightier groups will expand the morals of their group to the society they lead as a whole.<sup>34</sup> It is bad to kill a group member, so it is bad to kill a member of society. It is bad to steal from your neighbour, so it is bad to steal from the king. It is good to help your brother, so it is good to help the government. Members of the dominant group initially parasitize on

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<sup>27</sup> Frans B.M. de Waal, *Primates and Philosophers: How Morality Evolved*, Princeton: Princeton University Press 2006, p. 56; Joshua Green & Johnathan Haidt, *How (and Where) Does Moral Judgment Work?*, *Trans. Cogn. Sci.* 2002, p. 517-523.

<sup>28</sup> De Waal (note 27), p. 21-29.

<sup>29</sup> Hendrik Gommer, *Stability as the Biological Essence of Law*, forthcoming.

<sup>30</sup> Keith Jensen, Joseph Call & Michael Tomasello, *Chimpanzees are Vengeful but Not Spiteful*, *PNAS* 2007, p. 13046-13050.

<sup>31</sup> Richard D. Alexander, *The Biology of Moral Systems*, New York: Aldine the Gruyter 1987, p. 174.

<sup>32</sup> Peter J. Richerson & Robert Boyd, *Darwinian Evolutionary Ethics*, in: Phillip Clayton & Jeffrey Schloss (eds.), *Evolution and Ethics*, Cambridge: W.B. Eerdmans Publishing Company 2004, p. 50-77.

<sup>33</sup> Dominic D.P. Johnson, *God's Punishment and Public Goods*, *Human Nature* 2005, p. 410-466.

<sup>34</sup> It is well known that Hinduism developed following the invasion of India by the Arians, who had much more sophisticated weapons than the indigenous population of India. The Arian elite formulated the Rigveda, a holy book that gave them godly powers and described godly morals.

the subordinated groups, but as the groups dissolve and eventually form a society, they profit from the new order. More specialisation is possible; the society will defend all members and can deliver all kinds of goods, luxury and health care. Members of a stable, organised and specialised society will be better off as attacks of smaller groups will have little or no effect on the survival and reproduction of most individuals. A society contains many smaller groups. Possibly, these groups were initially hostile towards each other, but later on they expanded their group moral and group rules, so that they could work together. The history of societies is from this point of view a continuing expansion of the group circle. The best way to fight war is to expand the in-group.<sup>35</sup> African Americans are essentially Americans, not members of the black community; Dutch Muslims are essentially Dutch, not Turks or Arabs. Only if people *feel* other races are as much human as they themselves are will they desist from treating them as non-group members.

### III. Bridging the gap

Still, it could be argued that a non-biological premise remains necessary: law *ought* to favour reproduction. But again, it is the other way round. Law exists because it favours reproduction. Without law there will be more violence and more free riders; there will be no room for a complex and specialised society. Law *ought* not to favour reproduction, it simply *does*. We *feel* we ought to live according to legal rules, because it is to our evolutionary advantage. This thought is in line with Hume's observation

'that morality is not an object of reason. [...] Take any action allow'd to be vicious: Wilful murder, for instance. Examine it in all lights, and see if you can find that matter of fact, or real existence, which you call vice. In which-ever way you take it, you find only certain passions, motives, volitions and thoughts. There is no other matter of fact in the case. The vice entirely escapes you, as long as you consider the object. You never can find it, till you turn your reflection into your own breast, and find a sentiment of disapprobation, which arises in you, towards this action. Here is a matter of fact; but 'tis the object of feeling, not of reason.'<sup>36</sup>

For example, when someone takes food that belongs to you, the taking in itself is not bad. Nevertheless, you feel anger. That feeling itself is a fact. It is aroused by biological mechanisms. If we were to let others rob us of our food, we would die. So appropriating someone's property is deemed wrong and is therefore forbidden. Apes and humans both feel angry when this unwritten rule is transgressed. Unlike apes, however, humans have developed the ability to put these morals in writing, in rules that can be used to classify single events as 'ought' or 'ought not'. The underlying feeling is a biological translation of what will help spread our genes and what will not.

Admittedly, this line of reasoning might be dismissed as merely offering an explanation for how rules have come about instead of a justification. Natural law should offer a set of *reasons* criticising and justifying actions or institutions. Evolutionary theory does not advance such reasons. Evolutionary theory might *explain* some of our basic institutions and values and does so by referring to possible

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<sup>35</sup> De Waal (note 27), p. 53.

<sup>36</sup> David Hume, Treatise of Human Nature, Book III 1740, Part I, Section I, paragraph 26.

causes of our values and rules. It does not say anything about the normative merits of these rules. Yet, even if it is true that evolutionary theory has so far not advanced such reasons, the theory described above does.

Jonathan Haidt shows how reason cannot be the basis of normative thinking.<sup>37</sup> He does this through 'moral dumbfounding'. Suppose an adult brother and sister have sexual intercourse because they feel this creates a strong bond. Most people will disapprove of this behaviour and may motivate their disapproval by stating that it is likely to produce abnormal offspring. This argument, however, is invalid because the siblings use contraceptives. So in what sense then is sex between siblings unnatural, and is this not also true of marriage? According to Haidt's 'social intuitionist model', feelings of resentment are rarely supported by rational arguments. When the first reason is stripped, people search for another reason. And when all reasons misfire, they can only say: 'Well, I don't know, but still it is wrong'. According to Haidt, 'reason is used to persuade someone to share our beliefs.'<sup>38</sup> These beliefs are mostly unconscious and emotional.

Let us look at this example a bit more. It is not to the benefit of underlying genes when siblings mate. Not only does this increase the chances of producing abnormal offspring, the handicapped offspring will also be a burden to the group. For the siblings and for the group it would be better if siblings did not mate. Evolution has solved this problem by the arousal of disgust when we think of mating with a brother or sister, or when we hear of a brother and sister mating. Statistically, incest will therefore be a fairly rare occurrence among humans. This evolution-driven feeling of disgust can be translated into a morally inspired prohibition: 'If a man takes his sister [...] and they see one another naked, it is a scandalous disgrace. They shall be cut off in the presence of their people.'<sup>39</sup> The biblical motivation for this rule is emotionally charged. Incest is forbidden because it is a disgrace. In some countries the rule remains in force to this day.<sup>40</sup> In the Netherlands sibling mating is not forbidden, but marriage between siblings is.<sup>41</sup> Ultimately, this norm derives from the fact that if siblings mate, this is neither to their evolutionary advantage, nor to the benefit of the group.

Does this theory say anything about the normative appropriateness or quality of those feelings? Yes it does. Since the underlying, unconscious feeling of disgust is caused by evolutionary mechanisms, we can derive if sibling marriage ought to be forbidden in this day and age. The reasoning could start with the evolutionary disadvantages of sibling mating. Since contra conception takes care of this problem, this argument is obsolete. Another argument could be that such marriages are disgusting to group members. Sibling marriages could destabilise society and should therefore be forbidden. This is in fact how Devlin reasons, but he grounds his reasoning in the morality of society. He does not ask where this morality comes

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<sup>37</sup> Jonathan Haidt, *The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment*, Psychological Review 2001, p. 814-834.

<sup>38</sup> Jonathan Haidt, *Comfortably Dumbfounded*, in: Tamler Sommers, *A Very Bad Wizard: Believer Books* 2009, p. 157.

<sup>39</sup> Leviticus 20:17, ford: Oxford University Press 1979.

<sup>40</sup> E.g., the Sexual Offences Act 2003 in the UK.

<sup>41</sup> Art. 1:41 of the Dutch Civil Code.



from.<sup>42</sup> The argument here is that this morality is determined by the evolutionary, biological mechanism of disgust. The question that should then be asked is whether a community can come to terms with this common disgust?' The factual answer might well be 'yes'. Many people feel an evolution-driven aversion to homosexuality, but in numerous countries, including the Netherlands and the United States, it has been shown that same-sex marriage need not destabilise society.

Norms can therefore derived from biological facts norms as follows:

1. Sibling mating produces abnormal offspring.
2. Abnormal offspring is not to the advantage of underlying genes.
3. Evolution causes people to feel resentment against sibling mating.
4. People will feel sibling mating is wrong.
5. Societies have to translate this feeling into legal rules prohibiting sibling mating and marriage, to keep stable.

A judge will rule against sibling marriage on the basis of the law, just as she will do when imposing a fine. She does not realise that the law is a reflection of biological mechanisms. If she did, she could also point to the harmful effect of sibling marriage on feelings of moral propriety among citizens (including herself). However, as these feelings have been laid down as rules in the law and judges are appointed to administer the law, all that is required (and it is indeed required) is that they refer to the law (and to the law only) to support their decisions..

New circumstances can lead to new rules, for example:

1. Contra conception will prevent the issue of defective offspring.
2. Biologically, sibling marriage need no longer be deemed wrong.
3. The ban on sibling marriage can be lifted.

Norms derive from biological facts. We have mostly done this (and still mostly do) by translating our biologically determined feeling into written rules. Through these rules we can improve the communication of these feelings. This communication makes it possible to create larger societies, where because of, for instance, geographical distance and sheer population numbers feelings no longer can be felt. Even so, these rules are still based on emotional, moral feelings. Until quite recently, no ought could be derived from an is by reason, not until we learned that our feelings are caused by biological mechanisms, feelings and mechanisms that for a considerable time had been to the advantage of the spreading of underlying genes.

The justification of the norm that siblings ought not to marry is an emotion. As Haidt concluded: 'We just know.' It is an emotion that has evolved over a long time. Rules merely help to communicate these feelings of right and wrong. Over the last few decades, we have learned that such norms in fact form an evolutionary mechanism to the advantage of group stability and therefore the survival of the underlying group gene pool. *Norms are post hoc rationalisations of unconscious evolutionarily determined feelings, a feelings that reflect evolutionary, biological calculations.*

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<sup>42</sup> Patrick Devlin, *Morals and the Criminal Law*, in: *The Enforcement of Morals*, London/New York/Oxford: Oxford University Press 1965.

The translation of feelings into specific norms explains why there are many differences between cultures. The more specialised a rule, the more it will vary. However, Paul H. Robinson and Robert Kurzban show that people broadly 'share intuitions that serious wrongdoing should be punished.'<sup>43</sup> The process of distributing punishment requires an ordinal ranking. Every society determines the most severe punishment (e.g., the death penalty or lifelong imprisonment) for the gravest offence and from this reference point works through a list of offences. The punishment will be distributed differently.<sup>44</sup> The ordinal ranking generally is consistent across different cultural groups.<sup>45</sup> The variability in judgements is systematic and there is much consensus about the ranking of crimes.<sup>46</sup> Mikhail found that the prohibition of homicide is universal and highly invariant.<sup>47</sup> All the jurisdictions investigated included a mental state element. Justifications and excuses are remarkably similar and consist of a short list, including self-defence, necessity, insanity or mental illness, duress or compulsion, provocation, intoxication, mistake of fact and mistake of law. Mikhail shows that 'human beings are "intuitive lawyers" who possess tacit or implicit moral and legal knowledge and a natural ability to compute structurally complex unconscious presentations of human acts and their components'.<sup>48</sup> He concludes that future research in moral psychology should build on this naturalistic foundation.<sup>49</sup> Robinson, Kurzban and Jones search for an explanation of this intuition of justice in natural selection as the 'origin of all complex, functional human traits'.<sup>50</sup> Challenges of group living like aggression, competition, cooperation and moral sentiments enable the evaluation of behaviour.<sup>51</sup> These emotions and preferences led to proto-moral and proto-legal systems.<sup>52</sup> Evolution has in particular contributed to intuitions that condemn physical harm, sexual harassment, the taking of property and cheating in exchanges.<sup>53</sup> Because the most successful strategy is to cooperate selectively with other cooperators, the ability to discern unfairness is crucial. Individuals that cheat, injure group members or take a free ride must be punished. A psychological system that can compute when someone is a free rider will therefore improve fitness. Shared

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<sup>43</sup> Paul H. Robinson & Robert Kurzban, *Concordance & Conflict in Intuitions of Justice*, 91 Minn. L. Rev. 2007, p. 1829, 1854-1855.

<sup>44</sup> Paul H. Robinson, *Competing Conceptions of Modern Desert: Vengeful, Deontological, and Empirical*, 67 Cambridge Law Journal 2008; Robinson & Kurzban (note 43), p. 1835.

<sup>45</sup> Robinson & Kurzban (note 43), p. 1853-1865; Thorsten Sellin & Marvin E. Wolfgang, *The Measurement of Delinquency* 1967, p. 131-140; Don C. Gibbons, *Crime and Punishment: A Study in Social Attitudes*, 47 Soc. Forces 1969, p. 391-395; Peter H. Rossi et al., *The Seriousness of Crimes: Normative Structure and Individual Differences*, 39 Am. Soc. Rev. 1974, p. 224-230; Monica A. Walker, *Measuring the Seriousness of Crimes*, 18 Brit. J. Criminology 1978, p. 348-349; Stephen D. Gottfredson et al., *Additivity and Interactions in Offense Seriousness Scales*, 17 J. Res. In Crime & Delinq. 1980, p. 26-29.

<sup>46</sup> Robinson & Kurzban (note 43), p. 1840.

<sup>47</sup> John Mikhail, *Is the Prohibition of Homicide Universal? Evidence from Comparative Criminal Law*, 75 Brooklyn Law Review 2010, p. 497-515.

<sup>48</sup> Ibid., p. 511.

<sup>49</sup> Mikhail (note 47).

<sup>50</sup> Paul H. Robinson, Robert Kurzban & Owen D. Jones, *The Origins of Shared Intuitions of Justice*, Vanderbilt Law Review 2007, p. 1639-1643.

<sup>51</sup> E.g. Frans B.M. de Waal, *Good Natured; The Origins of Right and Wrong in Humans and Other Animals*, 1996; Dennis Krebs, *The Evolution of Morality*, in *The Handbook of Evolutionary Psychology*.

<sup>52</sup> E.g. Margareth Gruter & Roger D. Masters, *Ostracism: A Social and Biological Phenomenon* 1986; Hendrik Gommer, *From the 'Is' to the 'Ought'*, ARSP 2010 (in press).

<sup>53</sup> Robinson, Kurzban & Jones, (note 50), p. 1644-1646.

intuitions of justice contribute to this ability, will tune sanctions within the group and will thus reduce the number of transgressions.<sup>54</sup>

#### IV. Is this biological theory of law a natural law theory?

Natural law theories are sometimes vested in God (Aquinas),<sup>55</sup> sometimes in human nature (Grotius)<sup>56</sup> or in 'self-evident' basic goods (Finnis).<sup>57</sup> Westerman relates a sad tale of decline with philosophers desperately trying to renovate the bulwark that is called 'natural law'.<sup>58</sup> The very title of her dissertation – The Disintegration of Natural Law Theory – makes any attempt to develop a new natural law theory suspicious from the very outset. In fact, Westerman concludes there are several reasons 'not to try to develop a new variety of natural law doctrine'.<sup>59</sup> If it makes no sense to develop a natural law theory, any theory that goes by that name is doomed to be invalid. However, before jumping to this conclusion, we must first determine if my theory of law meets Westerman's criteria of a natural law theory.

Westerman's working definition of a natural law theory is based on four assumptions:

- 1 There are universal and eternally valid criteria and principles on the basis of which positive law can be justified and/or criticised.
- 2 These criteria and principles are grounded in nature.
- 3 Human beings can discover those principles by the use of reason.
- 4 For positive law to be morally obligatory, it should be justified in terms of these principles and criteria.<sup>60</sup>

The biological theory of law I described above holds that there are universal criteria that are deducted from the characteristics of genes. Genes will spread if the phenotypes they bring about are sufficient to help their replication. This principle is universal to all living creatures but not eternal in the sense that these principles exist outside genes. Some genes predispose humans to intensive cooperation. This cooperation is intensified by the urge to punish free riders, who take advantage of group benefits but do not act according to group rules. Murder, theft, abuse, rape, damaging property of others and breaking promises are prohibited by positive law because they meet the principle of punishment of free riders. If free riders were not punished, the group would lose its stability and could no longer protect its members. This would be to the disadvantage of the spreading of the genes of the members that cooperate. If positive law approved theft, this would be against the biological mechanism of punishment of free riders. Positive law of this kind could be criticised from a genetic point of view. The biological theory of law therefore meets Westerman's first criterion.

But do we need this justification in biological mechanisms? Kelsen cautioned against the 'Charybdis' of reducing law to morality.<sup>61</sup> Legal science has to stand as an

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<sup>54</sup> Ibid., p. 1646-1651.

<sup>55</sup> *Thomas Aquinas*, *Summa Theologiae*, I, II, 93, art. 1 (1266-1273).

<sup>56</sup> *Hugo Grotius*, *De Jure Belli ac Pacis Libri Tres*, 1625, prol. 16.

<sup>57</sup> *John Finnis*, *Natural Law and Natural Rights*, Oxford: Clarendon Law Series 1980, p. 91.

<sup>58</sup> *Westerman* (note 11), p. 290.

<sup>59</sup> *Westerman* (note 11), p. 289.

<sup>60</sup> *Westerman* (note 11), p. 12.

<sup>61</sup> *Kelsen* (note 1).

autonomous discipline. The job of legal scholars is to describe the structure and the congruity of norms. Law is an autonomous system in which legal norms relate to each other, institutionalise their own change and organise their application.<sup>62</sup> This system starts with an authority that is competent to formulate law. From this *Grundnorm* all other norms can be derived by *blosse Gedankenoperation* (pure thought).<sup>63</sup> Kelsen condemns natural law theory mainly because 'aus dem Sein kein Sollen, aus Tatsachen keine Normen gefolgert werden können.'<sup>64</sup> Kelsen solves this problem by simply cutting off norms from empirical causes. It is the will – thought itself – that makes law.

A dualistic thinker would probably take this statement for granted, but a monistic thinker certainly would not. It looks as if norms and law still come from an undefined entity, and in this respect this kind of dualism does not differ much from metaphysical theories. Divine will is substituted by human will, but the question remains: what is this will, where does it come from and why does it want what it wants? What is thought? Does our thought really works as systematically as Kelsen supposed? Can thought really operate as autonomously as Kelsen wished? Evolutionary biologists do not think so. Arthur Dyevre remarks that Kelsen wants to focus on legal norms themselves, 'although legal norms are there to regulate human behaviour'.<sup>65</sup> Studying law as an autonomous system is trying to study an inherently human phenomenon while ignoring human behaviour itself. As a sect eventually loses touch with society, so will autonomously studied law drift away from other sciences. In the end it will become obsolete.

Apart from this, Kelsen's positivistic view amounts to pulling oneself out of the swamp by one's own hair. 'I have to behave in this way, because I say so.' From a scientific point of view, this is unsatisfactory. When you understand the effect of gravity on gymnastics, you can use that knowledge to improve your skills. It will certainly work better than thinking that if your faith is strong, spirits can lift you into the air. Likewise, most books about law ignore the role of genes, but that does not mean knowledge of genes cannot or will not improve law.

The second criterion is easier to acknowledge. The mechanism of replication of genes is a chemical process. Genes generate various phenotypes by chemical and biological mechanisms. The principle of punishment of free riders is therefore grounded in nature.

The next question is if these principles can be discovered through reason. This is a tough question because 'reason' is a philosophical notion, often used as a means of pulling oneself out of the swamp. I would like to discuss this problem by responding to some ideas of the Belgian philosopher Verplaetse. According to Verplaetse, it is

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<sup>62</sup> Kelsen (note 2), p. 321-333.

<sup>63</sup> Hart founds law in the same way by introducing the rule of recognition. Secondary law is needed to implement law. *Herbert L.A. Hart*, *The Concept of Law*, Clarendon Press, Oxford 1961. See also Michael Pawlik, *Die Reine Rechtslehre und die Rechtstheorie* H.L.A. Harts, Berlin: Duncker & Humblot 1993. Asked by my student Christian Mutlu (UvA), Dworkin answered that he too acknowledges the need for secondary law.

<sup>64</sup> An ought cannot be derived from an is. *Hans Kelsen*, *Reine Rechtslehre*, Wien: Verlag Franz Deuticke, 1976 (1960), p. 409.

<sup>65</sup> *Arthur Dyevre*, *Legal Positivism and Evolutionary Psychology: Can Legal Positivists Learn Something from Darwin?* 2010.

forbidden to underpin a normative statement with factual findings.<sup>66</sup> Moral is something we have in common with some animals, but norms are unique to humans. At the foundation of norms lies rational argumentation, not emotion or intuition. Ethics is about these norms. It does not ask why people think in an ethical way, but it considers the justification of our acts. However, what are the foundations of this justification? Verplaetse states that such a meta-ethical question is not useful. He quotes Peter Singer by stating that reason is just like an elevator, 'once we step on it, we cannot get off until we have gone where it takes us'.<sup>67</sup> There is no upper floor in reason. According to Verplaetse, we need reason to constrain immoral consequences of moral that is based on emotions. We also need reason to constrain the influence of irrational, mystical and supernatural ideas of religion. Reasonable ethics can be a guide in multicultural societies. Just like many other philosophers and in line with Kant,<sup>68</sup> Verplaetse founds ethics and law on reason. However, what is reason? Where does it come from? In biology and psychology, this notion does not even exist. In these disciplines we talk of consciousness, intelligence, cognitive skills or neocortex activity. A dualistic philosopher might say that the neocortex could be the seat of reason, but that does not say anything about reason itself. No research on those billions of nerve cells can ever tell us what thoughts people can have, it cannot tell us what our mind (reason?) qualifies as 'good' or as 'bad'. In this perspective, Westerman is right when she states that a modern biological theory of law 'needs to argue that it is reasonable to act according to nature'. This is not possible if it is not clear what 'reason' is. The notion 'reasonable' even suggests there can be no fairness and justice without reason. This vocabulary makes leaving the trenches of dualistic thinking all the harder. Still, that is exactly what is necessary to identify a biological foundation of law. Reason is not divine in origin, nor is it a phenomenon that can exist outside the human body. Genes are a *conditio sine qua non* for reason. In fact, genes are the generators for the many steps between genetic replication and group rules.<sup>69</sup> From a biological perspective, some parts of our brain make it possible to be conscious of our actions, to communicate what we want and what we dislike, to think over our deeds. This thinking we could call 'reason'. Let us therefore define reason as conscious thinking that is caused by billions of nerve cells in our brain. Again, thinking is caused by biological mechanisms that make us think in favour of their spreading. *It is not reason that dictates the body how to behave; it is the body that dictates reason how to think.* Norms are a means by which our brain interprets facts so that we react to these fact in a way that benefits the spreading of the underlying genes most. This 'thinking' does not restrain our deeper 'immoral' biological urges. It helps us to survive. We use reason to persuade others to do what *we feel they ought to do*. Where then does this idea come from that we need normative thinking to restrain 'immoral urges'?

In a recent lecture, Verplaetse used an interesting example of this 'immoral behaviour that needs to be constrained'.<sup>70</sup> James Allen collected more than eighty photographs

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<sup>66</sup> Jan Verplaetse, *Het morele instinct*, Uitgeverij Nieuwezijds 2008, p. 237-244.

<sup>67</sup> Peter Singer 2006 in Verplaetse, *ibid*.

<sup>68</sup> Immanuel Kant, *Grundlegung zur Metaphysik der Sitten*, Frankfurt am Main: Suhrkamp Taschenbuch 1974, p. 76.

<sup>69</sup> A *conditio sine qua non* in the sense that a gene acts as a fractal generator that can form biological and behavioural structures in a chaotic environment. See also Hendrik Gommer, *The Molecular Concept of Law* (forthcoming).

<sup>70</sup> At Tilburg University, 28 November 2009.

of lynching parties in the United States.<sup>71</sup> Most victims were African-American men. Most of them had been hanged, some had been burned to death. The killers seemed proud of their actions. They posed next to their victims for photographs and sometimes had postcards made of these. Some families cherished these photographs as keepsakes. According to Verplaetse, the photographs clearly show that humans need to be restrained by reason. Otherwise, they will kill each other and be proud if to boot.



28 September 1919, lynching of William Brown in Douglas County, Nebraska

I think Verplaetse overlooks an important aspect. Most victims were black and could therefore be easily told apart from white Americans. They look as if they belong to another group and moral has likely evolved as an in-group phenomenon.<sup>72</sup> Outsiders are treated far worse than group members. The lynching of African Americans is a demonstration of fear of out-group people and as such it is a biological phenomenon. Throughout history humans have been the main threat to other humans. Fear of strangers is therefore a deep-seated emotion.<sup>73</sup> The white Americans in the photograph were proud of their lynching. Their conscious thinking approved their action. To them, it was 'reasonable' to kill out-group people that destabilised their society. The lynching of African Americans can thus be seen as an attack on non-group members. The African American victims were perceived as a threat. The punishment did not fit to the crime, but was that severe simply because they were not considered group members.

Do people need reason to know that African Americans are fellow Americans? Yes, they can deduce that African Americans are part of the group. However, the white Americans in the photograph considered themselves reasonable people. They simply reasoned otherwise. They justified their actions by stating that blacks were no good and posed a threat to a stable society. Moreover, the killing of outsiders enhanced in-group solidarity.<sup>74</sup> By contrast, why does 'reason' today tell us we should not lynch

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<sup>71</sup> <[www.withoutsanctuary.org](http://www.withoutsanctuary.org)>; *Without Sanctuary: James Allen, Hilton Als, Leon F. Litwack*, Lynching photography in America, Santa Fe: Twin Palms Publishers, 2000.

<sup>72</sup> *Alexander* (note 31).

<sup>73</sup> *David Berryby*, *Us and Them: Understanding Your Tribal Mind*, New York: Little Brown 2005.

<sup>74</sup> *Richard W. Wrangham & Dale Peterson*, *Demonic Males: Apes and the Evolution of Human Aggression*, Boston: Houghton Mifflin 1996.

people with different racial characteristics? Because they have become in-group; they hold important positions in our society. We not only reason they belong to the same group, it also *feels* that way when we see people of other races act (and speak?) like us.

So, yes, *nowadays* human beings can discover biological, chemical, genetical principles underlying positive law through conscious thought. The third criterion is met.

According to Westerman's fourth and final criterion, biological mechanisms have to justify positive law for it to be morally obligatory. I have argued that there is no contradiction between biological founded morals and 'reason'. Moreover, our conscious thinking is an extension to our unconscious emotions and feelings. As De Waal stated: 'If human morality could truly be reduced to calculation and reasoning, we would come close to being psychopaths.'<sup>75</sup> Without emotional attachment we will never reach a decision, let alone a moral decision.<sup>76</sup> We think we 'ought' to behave in a certain way because our feelings tell us so, feelings that just like emotions are programmed to act in the interest of spreading of the underlying genes. Reasoning cannot deviate from that, because the very act of thinking is only possible because of a constant exchange of information between different parts in our brains. If one's existence is involved, 'facts' will be interpreted in terms of norms. If one is not involved, 'facts' can be interpreted as 'mere' facts. A bystander can observe someone taking a twenty-dollar note from the table, whereas *you* can observe theft, which is 'bad', because that note was yours. When you let people take your money, you soon will have nothing left and come to sticky end, without offspring. You cannot let someone escape who acts contrary to the spreading of your genes. Well, you can, of course, but you will feel a strong urge to act against such an attitude of resignation. Letting things be can make you feel unhappy, which is a typical response to situations that are not in the benefit of the spreading of your genes.

However, it could be argued that these biological mechanisms do not justify positive law in such a way that it will be morally obligatory. They explain the rationale behind racial laws; these laws were dictated by the fear of out-group people. But were they just? They were to the Americans that saw African Americans as a threat. From a biological point of view, there is no objective kind of justice, no *summum bonum*. The need for group stability will prompt individuals to sacrifice some of their benefits. Law can help to keep a balance between the individual's interests and the group's interests. It is this balance that is experienced as justice. Racial law favoured the Americans who made it and codified their fear of black Americans. A large society is too big to be stabilised by morals only, so what is needed is a systematised and enforceable code of conduct. This system can regulate the actions of the members of society. If people behave in accordance with these rules, they will live and prosper. When people comply with the legal system, society will become more stable and its members will feel there is 'justice'. Legal rules within society develop because bigger groups cannot be stable without these rules. People form rules to stabilise society, because a stable society will improve their chances of survival and reproduction. Rules minimise tensions between group members. The rules are more or less formed

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<sup>75</sup> De Waal (note 27), p. 52.

<sup>76</sup> Antonio Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain*, New York: Putnam 1994.

unconsciously in a historical process and periodically rationalised and written down. A predisposition to group morals and group rules may imply a predisposition to a legal system. With systems of law, we can build societies that are much bigger and complex.

Why then do we nowadays consider racial law to be unjust? Why did Americans abandon racial law and reform positive law? From a biological point of view, black Americans became more influential. Racial law threatened the stability of society, instead of securing it. Positive law had to change because black Americans became to be considered fellow citizens, in-group people. We *feel* it is *just* to treat fellow citizens alike, because if we do not act violence within society will increase and this is not in the interest of our genes. In our society, it is therefore obligatory to behave according to positive law that treats blacks and whites alike. Positive law is not rigid; it is formed by biological mechanisms that engender different behaviour in a different environment. Nevertheless, it is biological mechanisms that set the norms of positive law. These laws do not come from some undefined reality, but are a way in which genes – through our brain – regulate our behaviour to the benefit of their spreading.

In this way, the biological theory of law also meets Westerman's fourth criterion. So here we have a natural law theory and the conclusion should then be that this theory cannot hold, because Westerman claims that it makes no sense to develop a new theory of natural law. Is Kaptein right and must a modern biological theory of law be deemed a fable? In order to answer this question, I will analyse Westerman's conclusions.<sup>77</sup>

## V. A modern natural law theory

The biological theory of law cannot be dismissed for the same reason that Aquinas' natural law theory was dismissed.<sup>78</sup> Biological theory needs no god, nor his judgement or will. Biological theory cannot rule out there is a god. It is thinkable there is a god that created our world, a god whose power is embedded in the powers and mechanisms of nature, a god that escapes our empirical observation. However, such a god is unknowable, and it therefore makes no sense to include a deity in our theories. Grotius thinks along these lines. Natural law is proximately grounded in human nature, so human nature can serve as the basis of natural law. Criteria for right and wrong cannot be found outside human nature.<sup>79</sup> According to Westerman, this concept does not help natural law. 'The traditional dilemmas concerning God's relation to natural law recur in the concept of human nature itself.' Grotius regards self-preservation as essential to human nature, but sometimes he understands this as that of the individuals, sometimes as that of the nation and sometimes as that of the human species.<sup>80</sup> While sociability and the preservation of mankind seem to be the main goal, it is self-preservation that is the main natural instinct. However, how can sociability be the main goal if self-preservation of the individual represents human nature? Is it God's will that makes humans weak, so that humans need to strive to be sociable and survive?

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<sup>77</sup> Westerman (note 9), p. 287-297.

<sup>78</sup> *Thoma Aquinas*, *Summa Theologiae*; *Fransisco Suárez*, *Tractatus de Legibus ac Deo Legislatore* (1612).

<sup>79</sup> Westerman (note 9), p. 148-149.

<sup>80</sup> Westerman (note 9), p. 152.



There is an important difference between Grotius' natural law theory and the biological theory of law. In the latter theory, genes, not humans, take centre stage. It is genes that replicate and that generate our traits. Genes have no goal. According to this theory, there is no goal, no summum bonum, no knowable god or divine will. Such notions as self-preservation, sociability and reason are not competing, nor are they fundamental to law. Naturally, these notions can help to spread genes, but in some situations, it will favour our genes if we give our lives to preserve our offspring or the group in which our offspring (or the offspring of our relatives) live. Sometimes it can pay not to be sociable and to be a free rider, especially if this behaviour goes undetected. Acting without thinking consciously can sometimes rescue us from sudden hazard and thus favour our genes, while in other circumstances conscious thought can help us find more food or protect ourselves against enemies.

Grotius came very close to the modern biological theory of law, but fell short of reaching it by placing the self-preservation of the individual or the group in the centre, where it are genes that are the more fundamental concept. Arguably, natural law theory was at a temporary climax and then declined: Puffendorf reintroduced God and Finnis' 'self-evident' seven basic goods lack a foundation in nature.<sup>81</sup>

Westerman states that there are three reasons why a biological theory of natural law is impossible. The first reason concerns the 'is'/'ought' problem. How can we derive norms from biological mechanisms? How can we know what is 'reasonable'? Well, monkeys do – without reason. If they learn to give a stone for receiving fruit, they will become angry if another ape is given fruit without having to give a stone in return.<sup>82</sup> If a chimpanzee takes away another chimpanzee's food, the 'victim' will become angry and will try to punish the 'thief'.<sup>83</sup> Unconsciously these primates know very well what is 'reasonable'. It is fair to get what you deserve, i.e., if efforts are rewarded and if free riders are punished. Why? Because reciprocity keeps a group stable, so that it can defend itself and group members can flourish and their genes can spread. Individuals *feel* a sense of fairness if the demand of reciprocity is met. Moral rules unconsciously create a *modus vivendi*.<sup>84</sup> This also explains why norms are biased towards the in-group. It explains why the Israelites adopted the ten commandments as twelve tribes converged<sup>85</sup> – new rules for a bigger in-group – and subsequently killed Amorites, Moabites and Canaanites, to name but a few. Group rules make group members cooperate better, so that they can defeat other groups and prevail. Group members 'ought' to behave according to group norms, for if they do not, they are weaker and are likely to be killed. Their genes will vanish. If the Israelites had not abided by these rules, the Canaanites could well have won and people could conceivably have thought for a long time that our laws were given to us by fertility gods. It is therefore very 'reasonable' to live according these biological mechanisms; without the behaviour they inspired our ancestors would have died and we would not have been here. As stated above, norms are a means our brains use to interpret facts so that we react to these facts in a way that benefits the spreading of the

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<sup>81</sup> Westerman (note 11), p. 288.

<sup>82</sup> Sarah F. Brosnan & Frans B.M. de Waal, Monkeys Reject Unequal Pay, *Nature* 2003, p. 297-300.

<sup>83</sup> Jensen, Call & Tomasello (note 28).

<sup>84</sup> De Waal (note 27), p. 162.

<sup>85</sup> Deuteronomy 5: 6-21. From a biological point of view these commandment were not divinely authored (at least not incontrovertibly so) but rather biologically driven.

underlying genes most. We *feel we ought to* live according to legal rules, because it is to our evolutionary benefit. In other words, we think normatively because empirical facts make us do so.

Can nature never oblige, as Westerman claims? I very much doubt it. Millions of years of evolution have planted strong urges in our minds: urges to stay alive, urges to avoid torture and slavery, urges to defend ourselves, our group and our property, urges to learn, urges to avoid sibling mating, urges to punish free riders, urges to follow group norms, urges to reproduce, urges to keep sane, and so on and so forth. These urges, these dispositions should be met by positive law. Most of these dispositions have been transformed into universal rights. These dispositions oblige people to keep in line with group rules, simply because if they do not, the likelihood of their genes spreading will ultimately diminish. Biological mechanisms oblige strongly, and if we act accordingly we will feel happy. Can we counter this obligation by reasoning? For example, can we choose to give free rein to our urge to reproduce and ignore all other considerations, now we know it is all about that? If we try, others will punish us for it and we will feel bad. We can also conceive of a system which no longer requires punishment, but I very much doubt this will work because the human urge to punish is probably as strong as the urge to cheat. Therefore, 'reason' and positive law cannot but follow these biological dispositions. We *feel* we are obliged to live according to positive law, because if we do not, violence within society will increase and that is not in the interest of our genes. In our society, law-abiding behaviour is therefore a prerequisite. Positive law is not rigid, so there is no obligation to live by 19<sup>th</sup>-century law. Nevertheless, as explained above, biological mechanisms lay down the norms of positive law. Positive law is a way in which genes – through our brain – regulate our behaviour in the benefit of their spreading.

Westerman's third objection to a biological theory of law is the 'enormous problem of translation'. Biological mechanisms cannot hope to be translated into guidelines to regulate human affairs. Admittedly, it is a long way from the replication of the genes to, say, section 30 of the Dutch Copyright Act. Nevertheless, the translation is not impossible.<sup>86</sup> In the case of section 242 of the Dutch Penal Code, which criminalises rape, the translation is easier. Rape can offer a significant evolutionary advantage. Of the women that were raped in the Netherlands in 2006 6.9% became pregnant,<sup>87</sup> which from a clinical perspective is a significantly reproductive benefit.<sup>88</sup> If this were a net benefit, not outweighed by costs, rape as a reproductive strategy would increase rapidly. It is therefore likely that rape will continue (and even increase) in situations where the male unconscious estimates the costs to be low. In a stable, male-led society, a system of control, honour, law, coercion and punishment has to keep men 'civilized'. However, this system does not come from the outside, it grows within communities because the genes that benefit from a stable society – where free riders will face high costs – will have a stimulating effect on its evolution. When individual group members act as free riders, the other group members will experience this

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<sup>86</sup> Dirk Visser did make such an attempt in *Dirk Visser & Gerrit de Jager*, *Te intellectuele eigendom*, De Lex 2010; See also *Oliver R. Goodenough & Gregory Decker*, *Why Do Good People Steal Intellectual Property?* The Gruter Institute Working Papers on Law, Economics, and Evolutionary Biology 2007, Vol 4, art. 3.

<sup>87</sup> *Rutgers Nisso Groep*, *Seksuele gezondheid in Nederland 2009*, [www.rutgersnissogroep.nl](http://www.rutgersnissogroep.nl), p. 18.

<sup>88</sup> *Randy Thornhill and Craig Palmer*, *A Natural History of Rape*, MIT Press 2000, p. 121; *John Maynard Smith*, *Evolution and the Theory of Games*, Cambridge: Cambridge University Press 1982; *Dawkins* (note 14), p. 66-87.

behaviour as unjust and they will take action to restore the balance. They will punish the free riders and overwhelm the benefits of the free rider behaviour.<sup>89</sup> Accordingly, they will put down this urge in rules that give this urge a more convincing status. Just like the Israelites formulated rules that had to stabilise their society and gave these laws a sanctified basis, we enshrine our urges in 'obligatory' positive law. Find all mechanisms that underlie human affairs will require a great deal of research, but because genes are a *conditio sine qua non* for human affairs, a genetic factor will always be needed for the translation.

## VI. Conclusion

Westerman claims modern biological theories cannot inform a theory of natural law. Yet I have presented a biological theory of law that meets all criteria of natural law theory. Chemical, genetic and biological mechanisms are the basis on which positive law can be justified. They are by definition grounded in nature and human beings can discover these principles by thinking consciously. The biological principles also are morally obligatory, because not living by them is tantamount to failure to live in a group, with the undesired result that underlying genes will not spread. 'Reason' and 'normative thinking' are the result of biological processes; there are no external sources (e.g., a god (Aquinas, Puffendorf, Suarèz) or society (Durkheim, Finnis)). A biological theory of law needs to be monistic, not dualistic. The problem for previous natural law theorists such as Grotius was that human nature was their point of departure. What humans experience as facts or norms depends on how their genes are involved. It is 'reasonable' to act according to nature, because if our ancestors had not, we simply would not have existed. We could act contrary to those biological mechanisms, but doing so would make us feel unhappy, because our genes have programmed us to heed those mechanisms. We are biologically driven to live by group rules. This makes us feel happy and will help spread our genes. This is very much an obliging principle, because for millions of years it was our *raison d'être*. We cannot simply ignore that fact without feeling very unhappy and without being punished by group members. Ethics did not materialise out of thin air,<sup>90</sup> but developed as a set of rules of conduct whose ultimate purpose is to further the spreading of genes. If we act in the interest of the group, the group will be stable and can defend our personal interests, interests that eventually come down to the spreading of our genes. In this way, it is possible to vest ethics, norms and law on biological mechanisms. This requires a monistic way of thinking, which is in fact how modern science works.

Now that I have argued that the decline of natural law theory was not the result of the invalidity of natural law itself, but of following the wrong path after Grotius' theory, there is no reason to suppose that this biological theory of law is a fable. I agree with Westerman's metaphor that the painter does not take a 'universal' brush to make his painting.<sup>91</sup> Even so, all brushes consist of a handle and hairs. This also means that

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<sup>89</sup> Robert Boyd and Peter J. Richerson, Punishment Allows the Evolution of Cooperation (or Anything Else) in Sizable Groups, *Ethology and Sociobiology* 1992, p. 171-195.

<sup>90</sup> Daniel D. Dennet, *Darwin's Dangerous Idea: Evolution and the Meanings of Life*, London: The Penguin Press 1995, p. 467.

<sup>91</sup> Westerman (note 11), p. 294.

we do not move in circles of interaction. We do eat to live, not live to eat.<sup>92</sup> We like eating, we like cooking, we like to buy food, we like earning money to be able to buy food, we punish those who take our food and money, because our genes urge us to strive to stay alive and to reproduce. We create, apply and rely on rules to justify punishment, rules that actually derive from biological mechanisms. Maybe, just maybe, such mechanisms were created by an unknowable entity, but that is a matter of faith and not of science.

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<sup>92</sup> *Lon L. Fuller, Means and Ends*, in: Kenneth I. Winston (ed.), *Principles of Social Order*, Durham: Duke University Press 1981, p. 54.